

DESCRIPTION OF SOME OF THE LARVAL STAGES OF
AMPHION NESSUS.

BY CAROLINE G. SOULE, BROOKLINE, MASS.

This description is taken from two larvae found feeding on *Ampelopsis Veitchii*, in Brookline, on June 20th, 1894.

Length of larva one-half inch. Head rather flat, and held with the mouth parts far forward instead of downward, giving a great slant to the head. It was green with a faint yellow line on each side, and a deep median suture. Body green, smooth, with sparse hairs hardly to be seen without a glass. It had a darker green dorsal line, and on each side a yellow subdorsal line extending from the head to the base of the caudal horn. Pale obliques were faintly indicated. Feet and props green. Caudal horn long, slender, pink, paler beneath.

June 25th.—Moulted. Three-fourths inch in length. The head was slightly bilobed, and all the marks were more distinct except the obliques. Feet and props green. Caudal horn shorter, stouter, dark at tip, and slightly rough.

June 29th.—Moulted. Length one and one-eighth inches. Head very round, bilobed, granulated on the sides; suture greener and deeper; face-lines opaque yellow white, the space between them being without granulations. Body green with yellow white granulations, and a dark green dorsal line. The subdorsal lines were yellow white edged above with dark green, and were not lines of granules. On the thoracic segments were faint indications of lateral and stigmatal yellowish lines. The granules on the body were arranged in transverse lines. The obliques were clearer, yellowish with dark green above, the last pair extending up the sides of the caudal horn. There were still a few hairs near the mouth, on the feet, and near the subventral line of the thoracic segments. The feet and anal props were green. The

abdominal props were green with a pink band near the tip. Anal shield edged with yellow white. Caudal horn short, stout, rough,—almost triangular in shape,—red above, pink beneath, with a deeper red line from the dark dorsal line to the tip of the horn. The third and fourth segments were a trifle larger than the others.

July 2nd.—Moulted. One and one-half inches long. General effect pale brown granulated with yellow, each granule having a black dot in the centre. Head bilobed, dark brown between the face lines and there granulated with black and a few yellow granules. Outside the face lines the granules were all yellow. Body pale brown with numerous black spots and yellow granules. Dorsal, subdorsal, lateral, and stigmatal lines on the thoracic segments. On the abdominal segments the dorsal line was represented by a black patch at the juncture of every two segments. The obliques were very dark, almost black, each ending, at the upper end, in a spot not quite round. There were nine obliques, beginning on the third segment; the eighth extending up the caudal horn, and the ninth crossing the spiracle under the caudal horn. Caudal horn short, stout, black, rough, very small. Spiracles black with a slight yellow encircling line, and a tiny yellow dot at each end. Anal shield darker brown than the body, and with the dorsal line extending to its tip, and the sublateral lines indicated. Edge yellowish. Feet and props brown. Anal props darker brown. The third and fourth segments were very slightly enlarged, suggesting *A. Myron*, while the larvae, in this stage, twitched and jerked from side to side when disturbed, as violently as *T. Abbotii*.

July 10th.—The larvae measured three

inches in length. The granules had disappeared, leaving only minute spots of brown paler than the body. The third and fourth segments were still so little enlarged as to be noticed only by an entomologist. All the other marks were as before.

July 12th.—The larvae grew to look dusty on the back, and stopped eating.

July 15th.—Pupated. Pupa one and one-half inches long, neither stout nor slender; very dark brown, and coffee-colored between the abdominal segments. Segments honey-combed; wing covers slightly rough; eye covers well defined. There was a slight pointed tubercle at the base of each antenna, close to the eye. Anal hook long, slender, with a bifid tip.

The second larva differed from this description in having much clearer and darker markings, and in being a trifle smaller. In the last moult it was at first bright green with dark green markings, but became brown twenty-four hours later. This one also spun a few threads fastening a leaf to the tin, while the first one did not spin at all. The pupa was a trifle smaller than the first one, and on January 14th, 1895, at 2 P.M., gave a fine ♂ *Amphion nesusus*.

RHOPALOMERA XANTHOPS, SP. NOV.

BY S. W. WILLISTON, LAWRENCE, KANS.

♂, ♀. Face wholly light yellow, with a small rounded tubercle near the middle. Palpi yellow, blackish at the proximal extremity. Antennae reddish yellow, the first two joints largely, and the third on the upper border, blackish. Front yellow, black or blackish on the anterior margin; no lateral frontal bristles; a pair of minute proclinate ocellar bristles present. Mesonotum reddish brown; when seen from in front with two distinct stripes reaching from the anterior border to about midway on the scutellum; a less distinct, median stripe, a narrow stripe on either side behind the

suture, and the lateral margins in front, all opaque light yellow. Pleurae pitchy brown, mostly shining; a single mesopleural bristle present. Scutellum gently sulcate above, the distal half shining mahogany-colored. Abdomen black or deep reddish black; second, third, fourth and fifth segments each with the sides silvery white; between these spots there are two rows of similarly colored spots, becoming successively smaller, those of the second segment more or less coalescent with the lateral ones. Hypopygium black or pitchy black, shining. Legs pitchy black, the upper part of the femora more reddish; the immediate base of all the tibiae and the first two joints of all the tarsi light yellow; hind tibiae dilated and ciliated, the row of bristles not very strong and not implanted on tubercles. Wings strongly tinged with brown, which is more intense distally in front and about the cross-veins. Length 10–11 mm.

Ten specimens, Yucatan, G. F. Gaumer, Coll. Univ. of Kans. It is possible that this species may be identical with the insufficiently described *R. flaviceps* of Macquart, from New Grenada, but not probable, as there are positive discrepancies in the description of the head, thorax and abdomen. In several specimens the face is for the greater part blackish, probably the result of desiccation.

ENTOMOLOGICAL NOTES.

In a paper read to the K. böhm. gesellschaft der wissenschaften on November 23d last, Dr. Anton Fritsch, of Prag, announced the discovery in the Permian beds of Bohemia of the larval cases of a caddis-fly. This is the first indication of the existence of insects with a complete metamorphosis in paleozoic times, unless the doubtful fragments found by Dathe in Silesian culm are to be regarded as shards of beetles, or the passages found in certain carboniferous woods are to be credited